

**GENERAL ENGINE DATA**

Type	4-Cycle, Water Cooled	
Aspiration	Turbo-Charged, Inter Cooler (Fresh water to Cooler)	
Cylinder Arrangement	60°V	
No. of Cylinders	12	
Bore mm(in.)	170	(6.69)
Stroke mm(in.)	180	(7.09)
Displacement liter(in <sup>3</sup> )	49.03	(2992)
Compression Ratio	14.5:1	
Dry Weight - Engine only - kg(lb)	5270	(11620)
Wet Weight - Engine only - kg(lb)	5555	(12249)

**PERFORMANCE DATA**

Steady State Speed Stability Band at any Constant Load		
Electric Governor - %	±0.25 or better	
Maximum Overspeed Capacity - rpm	2100	
Moment of inertia of Rotating Components - kgf·m <sup>2</sup> (lbf·ft <sup>2</sup> )	75.3	(1787.2)
(Includes Std. Flywheel)		
Cyclic Speed Variation with Flywheel at 1800rpm	1/576	

**ENGINE MOUNTING**

Maximum Bending Moment at Rear Face of Flywheel Housing - kgf·m(lbf·ft)	450	(3255.6)
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**AIR INLET SYSTEM**

Maximum Intake Air Restriction (Includes piping)		
With Clean Filter Element - mm H <sub>2</sub> O (in.H <sub>2</sub> O)	400	(15.7)
With Dirty Filter Element - mm H <sub>2</sub> O (in.H <sub>2</sub> O)	635	(25.0)

**EXHAUST SYSTEM**

Maximum Allowable Back Pressure - mm H <sub>2</sub> O (in.H <sub>2</sub> O)	600	(23.6)
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**LUBRICATION SYSTEM**

Oil Pressure at Idle - kgf/cm <sup>2</sup> (psi)	2 ~ 3 (29 ~ 43)	
at Rate Speed - kgf/cm <sup>2</sup> (psi)	5 ~ 6.5 (71 ~ 93)	
Maximum Oil Temperature - °C(°F)	110	230
Oil Capacity of Standard Pan	High - liter (U.S.gal)	150 (40)
	Low - liter (U.S.gal)	108 (28.5)
Total System Capacity (Includes Oil Filter) - liter (U.S.gal)	180 (47.6)	
Maximum Angle of Installation (Std. Pan)	Front Down	6.5°
(Engine Only)	Front Up	6.5°
	Side to Side	22.5°

**COOLING SYSTEM**

Coolant Capacity of Jacket (Engine only) - liter (U.S.gal)	116	(30.6)
Coolant Capacity of Air cooler (Engine only) - liter (U.S.gal)	14	(3.7)
Maximum External Friction Head at Engine Outlet - kgf/cm <sup>2</sup> (psi)	(For Jacket and Air Cooler)	
	0.35	(5.0)
Maximum Static Head of Coolant above Crankshaft Center - m(ft)	10	(32.8)
Standard Thermostat (modulating) Range of Jacket - °C(°F)	71 ~ 85 (160 ~ 185)	
Standard Thermostat (modulating) Range of Air Cooler - °C(°F)	42 ~ 55 (108 ~ 131)	
Maximum Coolant Temperature at Engine Outlet of Jacket - °C(°F)	98	(208)
Minimum Coolant Expansion Space - % of System Capacity	(For Jacket and Air Cooler)	
	10	(0.4)
Maximum Coolant Temperature at Intercooler Inlet, PTAW type - °C(°F)	45	(113)
Maximum Air Restriction on Discharge Side of Radiator and Fan - mm H <sub>2</sub> O(in.H <sub>2</sub> O)	10	(0.4)

Certified for US EPA-Tier 2 / Constant Speed

Standard Model [1250kWe/60Hz]

MITSUBISHI

**S12R-Y2PTAW-1**

SPECIFICATION SHEET

DIESEL ENGINES

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**FUEL SYSTEM**

Fuel Injector	_____	Mitsubishi PS6 Type × 2
Maximum Suction Head of Feed Pump - mm Hg (in. Hg)	_____	75 (3.0)
Maximum Static Head of Return Pipe - mm Hg (in.Hg)	_____	150 (5.9)

**STARTING SYSTEM**

Battery Charging Alternator - V- Ah	_____	24-30
Starting Motor Capacity - V - kW	_____	24-7.5 × 2
Maximum Allowable Resistance of Cranking Circuit - m	_____	1.5
Recommended Minimum Battery Capacity		
At 5°C (41°F) and above - Ah	_____	300
Below 5°C (41°F) through - 5°C (23°F)	_____	600

The specifications are subject to change without notice.

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APPLICATION : GENERATOR

Pub. No. T13-0634-E

Certified for US EPA-Tier 2 / Constant Speed

Standard Model [1250kWe/60Hz]

**S12R-Y2PTAW-1**

SPECIFICATION SHEET

MITSUBISHI

DIESEL ENGINES

**ENGINE RATING**

All data represent net performance with standard accessories such as air cleaner, inlet /exhaust manifolds, fuel oil system, L.O. pump, etc. under the condition of 100kPa(29.6inHg) barometric pressure, 77°F(25°C) ambient temperature and 30% relative humidity.

ITEM	UNIT	STAND-BY POWER	PRIME POWER		
		60Hz	60Hz		
Engine Speed	rpm	1800	1800		
No. of Cylinders		12			
Bore	mm (in.)	170 (6.69)			
Stroke	mm (in.)	180 (7.09)			
Displacement	liter (in. <sup>3</sup> )	49.03 (2992)			
Brake Horse power without Fan	HP (kW)	1881 (1403)	1709 (1275)		
Brake Mean Effective Pressure without Fan	kgf/cm <sup>2</sup> (psi)	19.4 (276)	17.7 (252)		
Mean Piston Speed	m/s (ft/min)	10.8 (2126)	10.8 (2126)		
Maximum Regenerative Power Absorption Capacity without Fan	HP (kW)	193 (144)	193 (144)		
Intake Air flow	m <sup>3</sup> /min (CFM)	135 (4767)	121 (4273)		
Exhaust Gas Flow	m <sup>3</sup> /min (CFM)	356 (12570)	320 (11299)		
Coolant Flow	liter/min (U.S. GPM)	1850 (489)	1850 (489)		
Coolant Flow to Intercooler (PTAW only)	liter/min (U.S. GPM)	340 (90)	340 (90)		
Cooling Air Flow (Std. Fan)	m <sup>3</sup> /min (CFM)	-	-		
Allowable Fan Loss Horse Power	HP (kW)	67 (50)	67 (50)		
Radiated Heat to Ambient	kcal/hr (BTU/min)	101344 (6703)	91105 (6026)		
Heat Rejection to Coolant	kcal/hr (BTU/min)	439159 (29045)	394787 (26111)		
Heat Rejection to Air Cooler (PTAW Version)	kcal/hr (BTU/min)	439159 (29045)	394787 (26111)		
Heat Rejection to Exhaust	kcal/hr (BTU/min)	1192141 (78847)	1059861 (70098)		
Noise Level (1 m height & distance) (excludes, Intake, Exhaust & Fan)	dB(A)	110	108		

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